94. A second and closely related form of inefficiency is known as the "hold-up problem" or the "underinvestment effect."[337] Here, the party undertaking a relationship-specific investment, in this case the programming network, realizes that once its investments are sunk they cannot be recouped if bargaining breaks down.[338] Therefore, the more a firm invests upfront in relationship-specific assets, the weaker its bargaining position, and the lower its expected surplus from the negotiation. Anticipating this, a firm in this circumstance will under-invest, relative to the economic optimum, in relationship-specific assets.[339] Viewed broadly, the fear that parties may be held-up by other parties may lead to too little investment in specialized assets, *i.e.,* programming, compared with the level of investment that maximizes economic efficiency. Thus, even if programming networks are able to negotiate successfully with a sufficient number of MVPDs under favorable terms, economic efficiency may not be maximized because of the relationship-specific nature of the programming network's investments. We seek comment on whether contracts can be written that overcome this problem such that the possibility of hold-up can be reduced or eliminated.

95. A third source of inefficiency occurs when mutually beneficial trades fail to occur because the two parties in the bargaining process are uncertain about the size of the surplus available from a completed deal. In this case, each party may demand a larger amount than is available and a complete bargaining breakdown or delay might occur, which in the present context would result in the withholding of otherwise valued programs from the market.[340] Any such breakdown or delay would impede the flow of programming. Economic theory has shown, however, that as the number of competitors on each side of the market increases, the likelihood of breakdown or delay is diminished, so that markets that have many competitors are approximately efficient.[341] Thus, the level of the

[337] *See* Oliver Williamson, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS (1975). Williamson's insight has been widely adopted in the study of contracts as well as vertical relationships in antitrust and regulation. *See, e.g.*, J.J. Laffont and J. Tirole, A THEORY OF INCENTIVES IN PROCUREMENT AND REGULATION, 99-100 (1993).

[338] The seller can reduce the likelihood of having the bargaining breakdown by increasing its willingness to accept a low price from the buyer.

[339] Programming networks and MVPDs have a unique relationship in that their investments are "co-specialized"; the economic value of their respective investments depends upon the behavior of the other party. Specifically, the value of the investments made by programming networks depends, in part, on the investment and other decisions made by MVPDs. Likewise, the value of the investments made by MVPDs depends, in part, on the investment and other decisions made by the programming networks. The co-specialized nature of their respective investments means that the interests of the programming networks and MVPDs are imperfectly aligned.

[340] When the number of programming networks exceeds the number of channels the MVPD has allocated to carry those channels, an economic inefficiency may also be caused by the MVPDs' uncertainty regarding the size of the rents available from carrying each channel.

[341] The original result on the inefficiency of bilateral bargaining is know as the Myerson-Satterthwaite Theorem. *See* Roger B. Myerson and Mark A. Satterthwaite, *Efficient Mechanisms for Bilateral Trading*, 29 J. ECON. THEORY 2, 265-81 (Apr. 1983). The proof that as individual bargaining power goes away the market becomes efficient is in Thomas Gresik and Mark Satterthwaite, *The Rate at Which a Simple Market Converges to Efficiency as the Number of Traders Increases: An Asymptotic Result for Optimal Trading Mechanisms*, 48 J. ECON. THEORY 1, 304-32 (Jun. 1989). For an exposition of these and related results, *see* Drew Fudenberg and Jean Tirole, GAME THEORY (1993).

inefficiency is directly and inversely related to the number of competing buyers and sellers. We ask whether an increase in cable concentration will likely lead to such breakdowns occurring, and thus increase the level of inefficiency.

96. If bargaining power is the frame of reference, then the economic question before the Commission is whether an increasing level of concentration among cable operators is likely to reduce the bargaining power of programmers to such an extent that (1) programmers cannot recover their costs, (2) the hold-up problem is amplified, or (3) the likelihood of bargaining breakdown increases. We seek comment on which of these economic inefficiencies may rise to the level of reducing the flow of programming to consumers.

(a) The Use of Bargaining Theory to Establish New Limits

97. Cable industry commenters draw on the work of Alexander Raskovich to argue that large firm size could, in fact, weaken a cable operator's bargaining position. For example, AT&T suggests that increased firm size reduces the likelihood of hold-up, because a larger cable operator can less credibly threaten to free-ride than a smaller cable operator, since the larger the operator, the more it will lose from failure to carry programming consumers value.[342] Moreover, if a buyer becomes so large that it becomes "pivotal" to a supplier's production decision, the buyer cannot credibly abdicate responsibility for ensuring that the supplier's costs are covered.[343] Time Warner, relying on Raskovich as well as Chipty and Snyder (1999),[344] claims that the larger cable operators' decreased bargaining position results in larger operators "sharing in efficiencies that they have helped to create rather than exerting greater buyer market power."[345]

98. Raskovich's model is a generalization of the work of Chipty and Snyder, who construct a bargaining framework in which a program seller engages in simultaneous bilateral bargaining with multiple program buyers. Raskovich amends the model of Chipty and Snyder to include pivotal buyers, that is, buyers without whom sellers would produce zero output.[346] Assuming that there is an even split between buyers and seller (*i.e.*, 50%-50% of a trade's surplus), Raskovich demonstrates conditions under which the pivotal buyer finds its bargaining position worsened.[347] Raskovich posits a situation in which a buyer becomes so large through merger that only the buyer can cover the seller's cost of

[342] AT&T Comments, Ordover Decl. at 47-44; AT&T Comments at 47. Assuming programmers recoup their programming investment by selling to a cable operator, they can sell their product to other operators at a substantially reduced price. Thus, competing cable operators "free-ride" on the operator who paid the up-front fixed costs of the seller. However, the ubiquity of so-called most-favored-nation clauses in programming contracts resolves this free-rider problem and protects the cable operator who initially purchases the programming from opportunism on the part of the programmer and other operators.

[343] AT&T Comments, Ordover Decl. ¶¶ 47-48.

[344] Tasneem Chipty & Christopher Snyder, *The Role of Firm Size in Bilateral Bargaining: A Study of the Cable Television Industry*, 81 REV. ECON. & STAT. 2, 326-40 (1999).

[345] Time Warner Comments, Joskow and McLaughlin Decl. at 15.

[346] Raskovich Comments at 3-4; Raskovich, *Pivotal Buyers and Bargaining Position.*

[347] *Id.* at 11-22.

producing programming. In this context, the programmer's surplus from bargaining with the single large cable operator would be greater than the sum of the surpluses the programmer would receive from the two buyers prior to the merger. This implies that once a cable operator reaches a sufficient size, its payments to programmers will increase.[348]

99. Neither the Chipty and Snyder model nor the Raskovich model persuades us that limits on cable operator size are unnecessary. Adilov and Alexander show that if there are asymmetries in bargaining power, *i.e.*, the surplus split varies from 50%-50%, the results of Chipty and Snyder and Raskovich may not hold.[349] Rather, they demonstrate that where bargaining power is not symmetric, mergers could improve a cable operator's bargaining position and decrease payments to programmers, even when the merged firm becomes pivotal.[350]

100. We find it unlikely that bargaining power is symmetric across all buyers regardless of size. No commenters offer any reasons or evidence to support the assumption that it is. Adilov, using basic data from the BKS Study, estimates bargaining power directly.[351] Adilov's results reveal statistically significant differences in individual buyers' bargaining power, a result that is not consistent with an assumption of constant bargaining power across firm size. The data generated from the BKS Study also show that buyers and sellers did not split the economic surplus evenly under all conditions.[352] We seek comment on the usefulness of the technical analyses contained in bilateral bargaining theory in light of the wide range of results it appears to generate.

(b) Experimental Economics Study

101. In 2002, the Commission launched the BKS Study, regarding the extent to which different levels of horizontal concentration among MVPDs might affect the flow of video programming to consumers. The study utilized the methodology of experimental economics, which examines economic interactions among market participants in controlled laboratory settings. The study was designed to aid the Commission in its evaluation of a horizontal limit on remand from the court in *Time Warner II*. The Commission placed the BKS Study in the record of this proceeding and sought comment on it.[353] To assist the public in its analysis of the study, the Commission also made available the raw data upon which the study's conclusions are based.[354]

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[348] *Id.* at 22.

[349] Adilov and Alexander generalize the models of Raskovich and Chipty and Snyder to allow for asymmetric bargaining power (*i.e.*, the split does not have to be 50%-50%). *See* Adilov & Alexander, *Asymmetric Bargaining Power, supra.*

[350] *Id.* at 8.

[351] Adilov *ex parte* statement (Jan. 9, 2003) (submitting Nodir Adilov, *Firm Size and Bargaining Power: A Non-Linear Least Squares Estimate from the Cable Industry*, Working Paper, Department of Economics, Cornell University (Nov. 2002)).

[352] *Id.* at 11.

[353] Public Notice, *Media Bureau Seeks Comment on Experimental Economics Study Examining Horizontal Concentration in the Cable Industry*, 17 FCC Rcd 10544 (2002).

[354] *See* www.fcc.gov/osp/workingp.html.

102. The BKS Study created an experimental market that parallels, in significant ways, the market in which programming networks and MVPDs negotiate affiliate fees.[355] Economic experiments were run under different levels of horizontal concentration among cable buyers.[356] The concentration levels were chosen so as to generate a wide size range for buyers while, at the same time, depicting concentration levels that may occur in the future absent government intervention. The study assessed the effects of horizontal concentration using four measures: economic efficiency, buyer's bargaining power, buyer surplus, and seller profits and losses.[357] The results for each measure varied, but by at least one measure – seller profits and losses – the study found that all except the most popular programming networks fared significantly worse in the market dominated by a single 51% buyer than in the market in which the two largest buyers served 44% and 39% of subscribers.[358] The adverse effects on seller profits in these hypothetical markets could induce sellers to either exit the market or lower the quality of their programming, particularly if alternative investments offered better comparative returns.

103. Commenters raise several objections to reliance on the BKS Study in setting a horizontal ownership limit. Perhaps the most common criticism of the study concerns "parallelism." Critics claim that because experiments cannot mirror the "real world" perfectly, the study cannot provide useful evidence.[359] For example, commenters noted the experiment failed to model the DBS operator as a direct competitor to the cable operators. Commenters also raise a number of arguments concerning the study's methodology. For instance, AT&T argues the study's alleged poor design induced subjects to engage in loss avoidance rather than profit-maximizing behavior.[360] Time Warner, on the other hand, claims that the study induced subjects to act erratically.[361]

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[355] *BKS Study* at 9-21.

[356] The experiment measured effects under three different hypothetical market configurations: (1) a market in which the largest buyer served 27% of all subscribers; (2) a market with two large buyers serving 44% and 39% of the market; and (3) a market in which one large buyer served 51% of the market and the next largest buyer served only 17%. *Id.* at 15.

[357] *Id.* at 22-26.

[358] *Id.* at 45-48. In this environment, the least popular networks suffered greater losses than in the 44%/39% market, and the moderately popular network enjoyed lower profits than in the 44%/39% market. *Id.*

[359] AT&T Supplemental Comments at 8; Comcast Supplemental Comments at 6, 8; Time Warner Supplemental Comments at 5; SBC Supplemental Comments at 1.

[360] AT&T Supplemental Comments at 14.

[361] Time Warner Supplemental Comments at 10. In addition to the above objections, there are a standard set of criticisms leveled against economic experiments. *See* Vernon Smith, *Method in Experiment: Rhetoric and Reality*, 5 EXPERIMENTAL ECONOMICS 2, 91-100 (Oct. 2002). For example, it is sometimes asserted that the subjects participating in the experiments do not have the requisite level of knowledge and experience, and that parties to actual negotiations use consultants to assist in the decision-making process. Another criticism is that the instructions that describe the economic environment in which the subjects participate may have been unclear or inadequate, thereby leading to anomalous subject behavior. A closely related criticism is that, perhaps because of the complexity of the economic environment, subjects were not given sufficient opportunity to learn how best to behave in the economic experiment.

104. We recognize that the BKS study has limitations in that DBS was not modeled as a competitor, and the study did not include vertically integrated players. However, we believe that experimental economics can be a useful tool for evaluating the effects of increasing concentration. We seek comment on whether we should continue to consider experimental economics, as well as additional analytical methods that may help us devise a limit.

b) Additional Factors in the Analysis

105. In the previous section we presented three frameworks for analyzing the potential harms associated with horizontal concentration among buyers in the programming market. In this section we discuss four factors that should be considered when designing, evaluating, and applying an analytical framework. For each of these factors we seek comment on its weight and importance in each of the analytical frameworks we have examined, as well as suggestions on how to incorporate the factor into the analytical frameworks.

(1) The Impact of Competition at the Distribution Level

106. The *Time Warner II* court criticized the Commission for failing to examine whether cable operators had market power in the distribution market, and, in particular, for failing to take into account the growth of competition from DBS providers.[362] It also expressed concern that the Commission's analysis was focused too narrowly on cable operators' current market share, and that a proper analysis of market power should include consideration of "the *availability* of competition," and its impact on the elasticities of supply and demand.[363] It pointed out that MVPDs that attempted to exercise market power by refusing to carry new programming might find their customers switching to other MVPDs.[364]

107. In the *2001 Further Notice* we noted the growth of DBS' share of the MVPD market.[365] We sought comment on the impact of DBS' growth and presence on cable operators' market power and on their incentive to choose programming for reasons other than quality.[366] We also sought comment on what level of competition in the MVPD market would be "sufficient to provide alternative means for programmers viably to reach consumers," and on the appropriate measure for determining when this level of competition is reached.[367]

108. In response, cable commenters argue that the Commission must conduct a "dynamic" examination of market power. They suggest that the ability to exercise market power depends not only on market share, but on the elasticities of supply and demand. Thus, to determine cable operators' market power, we should consider barriers to entry and emerging competition, as well as their long-run

[362] *Time Warner II*, 240 F.3d at 1134.

[363] *Id.* (emphasis in original).

[364] *Id.*

[365] *2001 Further Notice*, 16 FCC Rcd at 17326 ¶ 21.

[366] *Id.* at 17326-27 ¶ 22.

[367] *Id.* at 17327 ¶¶ 23-24.

effects. These commenters maintain that a dynamic analysis of the MVPD market indicates that the Commission need not impose any limits, since programmers have so many different outlets for their product that cable operators hold no deleterious market power.[368] They point out that when Section 613(f) was enacted, cable and broadcast television were the primary outlets for distributing video programming, while in the interim, other forms of video distribution, primarily DBS, have become much more widespread, such that cable's share of all MVPD subscribers has been reduced by almost 25%.[369] Furthermore, many commenters contend that DBS is growing at a fast rate – a rate that exceeds cable's growth rate – and that it is offering digital technology that has vastly expanded channel capacity. In addition, Comcast points out that while DBS was originally predicted to thrive only in areas not served by cable, today, at least half of all new DBS subscribers are switching from cable.[370] These commenters maintain that because any dissatisfied cable customer can switch to DBS, cable operators have no incentive to lower the quality or quantity of programming. Therefore, in their view, limits are not necessary.[371]

109. CFA argues that DBS is not a substitute for cable, because of its higher price and quality.[372] It argues that DBS provides a high end product that is not attractive to the typical "lunch bucket" consumer of cable services.[373] CFA claims that DBS providers prefer to compete in terms of programming and not price, and that the rise of DBS competition has failed to limit cable rate increases.[374] CFA points to survey data that show that rural areas often lack cable service, and that a large proportion of satellite customers live in rural areas.[375] CFA claims that the survey data demonstrate that for most satellite customers cable is not a substitute, either because it is not available, or because consumers view it as a complement.[376] As supporting evidence CFA provides an analysis of consumer survey data and consumer monthly bills that shows that DBS services are considered higher quality, and cost more than basic cable.[377]

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[368] Comcast Comments at 29-31; Time Warner Comments, Joskow and McLaughlin Decl. at 2-6, 11, 21; NCTA Comments, Shelanski Decl. at 8; AT&T Comments, Ordover Decl. at 62; Time Warner Comments at 13-14; AT&T Reply Comments at 6.

[369] Comcast Comments at 17-29; NCTA Comments at 11-14.

[370] Comcast Comments at 23.

[371] Comcast Comments at 17-21; Time Warner Comments, Joskow and McLaughlin Decl. at 6-7; AT&T Comments, Ordover Decl. at 10, 23-26; PFF Comments at 18; AT&T Reply Comments at 7.

[372] CFA Comments at 163-70. *See also* Writers Guild Comments at 9-10 (rejecting the notion that the existence of DBS could render horizontal limits unnecessary).

[373] CFA Comments 170-71.

[374] *Id.* at 155-57.

[375] *Id.* at 159-60.

[376] According to CFA: "Thus, in this survey, just under 60% of respondents either cannot get cable or appear to view it as a complement, rather than a substitute." *Id.* at 163.

[377] *Id.* at 163-70. *See also 2005 GAO Report* at 7-8.

110. We seek comment on CFA's arguments and evidence, especially in light of the rapid growth of DBS subscribership and recent changes in the prices and programming DBS operators offer. We find no evidence that cable subscribers are substantially less affluent than satellite subscribers. In 2003, average household income of cable subscribers was $48,700, while that of satellite subscribers was $51,600.[378] In addition, we note that recent reports suggest that cable subscriber growth has stalled, while DBS subscribership continues to grow at a rapid rate.[379]

111. We also seek comment on whether a dynamic analysis of the type envisioned by cable commenters is necessary, and comment on how we could perform such an analysis. A number of factors suggest that a dynamic analysis is not necessary. First, barriers to entry in the MVPD market remain high for new entrants.[380] Cable overbuilders in particular have faced many obstacles in their attempts to enter and survive in the marketplace, and many overbuilders have scaled back construction plans or failed.[381] Because the costs of building competing cable systems are high, overbuilders today generally are concentrated in high-density portions of urban and suburban markets.[382] New satellite-based competitors, on the other hand, must contend with physical spectrum constraints and limited orbital capacity.[383]

112. Second, the number of existing MVPD competitors in most geographic areas remains small for the distribution market, three in most cases, and two in others.[384] Because this market is still highly concentrated, cable operators are likely to retain substantial market power in those areas. We note that commenters make no serious attempt to calculate the effect of DBS on cable operators'

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[378] Calculated by FCC staff using survey data from TNS Telecoms ReQuest Market Monitor™, Bill Harvesting®.

[379] *See 11th Annual Report*, 20 FCC Rcd at 2758, 59 ¶¶ 5, 7; Peter Grant, *Cable Trouble: Subscriber Growth Stalls As Satellite TV Soars*, WALL ST. J., Aug. 4, 2004, at B1.

[380] Because of the high sunk costs and specialized assets needed to enter this market, one possible "dynamic" theory, that of contestable market theory, may not apply to this market. *See* William J. Baumol, John C. Panzar & Robert D. Willig, *Contestable Markets and the Theory of Industry Structure* (1988).

[381] *See, e.g., 8th Annual Report,* 17 FCC Rcd at 1294-97 ¶¶ 107-15; *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 17 FCC Rcd 26901, 26948-52 ¶¶ 102-11 (2002) (*9th Annual Report*). *See also* RCN Comments at 3-4. There have been recent announcements regarding some Bell Operating Companies' plans to roll out fiber optic cable to the home (FTTH) to provide advanced digital services to their customers, including multichannel video programming. *See, e.g.*, Verizon, *Verizon Poised to Deliver First Set of Services to Customers Over Its Fiber-to-the-Premises Network* (press release), July 19, 2004, available at http://newscenter.verizon.com/. The announcements generally involve limited "test market" areas. Widespread deployment, if determined to be feasible, is still several years away. *See also 11th Annual Report*, 20 FCC Rcd at 2823-25 ¶¶ 127-28.

[382] *See 8th Annual Report,* 17 FCC Rcd at 1294 ¶ 107.

[383] *See EchoStar-DirecTV HDO*, 17 FCC Rcd at 20616-19 ¶¶ 140-50. *See also* Morgan Stanley, "Cablevision Plans To Spin Off Satellite and Theater Assets," June 3, 2003 ("Even with all 13 frequencies, there is not enough spectrum to effectively offer local into local.")

[384] *See EchoStar-DirecTV HDO*, 17 FCC Rcd at 20612-14 ¶¶ 126-32.

bargaining power. We seek comment on the degree to which the presence of DBS distribution alternatives acts to curb cable operators' bargaining power in the total programming market.[385]

113. We also find that commenters have failed to provide a method of analyzing the effects of competition in the MVPD market that would allow us to establish a specific limit. Despite their criticisms of the static model, no commenter described, demonstrated, or utilized a theoretical framework that could incorporate the competitive effects that were alleged to be important.[386] We seek comment on whether we can modify the model to incorporate these important competitive effects, or develop a new framework, taking all relevant effects into account that would enable us to carry out our statutory responsibility under Section 613(f).

(a) Threshold Approach

114. In the *2001 Further Notice* the Commission asked for comment on whether to assess a cable operator's market power in the MVPD market with a measure other than its market share in the national market, and to use this alternative measure in a so-called threshold approach. Under this approach, the Commission would determine the level of competition from DBS and other MVPDs necessary to prevent the harms identified by Congress in Section 613(f).[387] As long as competition exceeded this threshold, no horizontal limit would be necessary. The threshold would denote a level of competition at which the market afforded sufficient alternative means, in addition to cable, for video programmers to reach consumers. The *2001 Further Notice* proposed several measures that could be used in a threshold test discussed below, and asked for comment on these.[388]

115. PFF advocates a threshold approach, and argues that the Commission should find that the existence of a single MVPD competitor to incumbent cable operators is sufficient to curb the harms envisioned by Section 613(f).[389] RCN supports a similar approach for measuring and addressing market power to control sought-after programming in individual markets and stresses that the threshold

[385] We note that subscribership totals for existing non-cable MVPDs, especially DBS, are included in our calculations of market shares of the programming market for cable operators. Thus the importance of DBS providers in providing a competitive alternative to cable providers could be considered to be reflected in DBS' shares of the total MVPD subscribers.

[386] It is important to recognize that although commenters have called for a dynamic market analysis, they have failed to provide a mathematically rigorous dynamic model. The Raskovich model, which commenters rely upon extensively, is a static model. We are not aware of a dynamic model of the MVPD industry.

[387] *2001 Further Notice*, 16 FCC Rcd at 17343 ¶ 64.

[388] *Id.* at 17345-46 ¶¶ 69-70. In the *2001 Further Notice*, we also sought comment on a restriction on cable-DBS cross-ownership as it would relate to the adoption of a threshold approach. *Id.* at 17345 ¶ 68. We received comments both supporting (Writers Guild Comments at 10) and opposing (Cablevision Comments at 5, 15-16) adoption of such a restriction. Since we are not adopting the threshold approach, we do not reach the question of whether a cable-DBS cross-ownership restriction is necessary to promote the goals of Section 613(f).

[389] PFF Comments at 17-18. At the same time, PFF recommends that the Commission be permitted to continue to gather evidence of the existence of market power and resulting harms to consumers in the MVPD marketplace and fashion remedies where appropriate. *Id.*

approach should be applied on a market-by-market basis and not simply applied nationally.[390] CFA opposes the proposed threshold approach, arguing that it does not meet the statutory requirement that the Commission "shall" set a horizontal ownership limit.[391] CFA further contends that the approach is unworkable because the Commission could not effectively enforce it.[392]

116. We seek additional comment on the use of the threshold approach in establishing a horizontal ownership cap. In the *2001 Further Notice*, the Commission requested comment on whether the Implicit Lerner Index, the "q" ratio, or the Herfindahl-Hirschman Index (HHI) could be used in the threshold approach.[393] We seek additional comment on the use of these measures, as well as alternative measures of market performance. How well does the economic theory underlying these measures comport with the characteristics of the video programming and MVPD markets? How do the numeric values of these measures relate to the degree to which the flow of video programming from the programmer to the consumer may be unfairly impeded? If we adopted any of these measures, how would they be calculated and applied to determine the appropriate horizontal limit?

(2) The Potential for Joint Action

117. Section 613(f)(2)(A) of the Communications Act requires that the Commission ensure that cable operators, either singly or as a group, because of their size or because of their joint actions, not be able to unfairly impede the flow of video programming.[394] In the *1999 Cable Ownership Order*, the Commission assumed that multiple avenues of entry were necessary to ensure the unimpeded flow of programming. The Commission utilized an open field approach to set a 30% limit, which guaranteed that even if there were collusion between the two largest players to attempt to prevent entry by a programmer, that programmer would still be able to gain enough subscribers through carriage on other systems. The 1999 order also hypothesized that the two largest operators might effectively preclude entry of a new programmer by tacitly reaching the same carriage decision. The *Time Warner II* court rejected the Commission's analysis, arguing that the risk of collusion had been inadequately substantiated, and that the Commission had failed to demonstrate that the legitimate, independent

[390] RCN Comments at 17-18.

[391] CFA Comments at 21-25.

[392] *Id.* at 24-25.

[393] *2001 Further Notice*, 16 FCC Rcd at 17342-43 ¶¶ 62-64. The Commission has previously examined the q-ratio (also known as "Tobin's Q"). For instance, commenters to the *1990 Report* calculated q-ratios for the cable industry of between 3.3 and 4.3. We noted in the report that although the high q-ratios indicated some, or even substantial, market power in 1990, application in this context must be made carefully because the q-ratio is sensitive to the assumptions made in its calculation and to specific industry characteristics. *See Competition, Rate Deregulation and the Commission's Policies Relating To the Provision of Cable Television Service,* 5 FCC Rcd 4962, 4997-5003 ¶¶ 54-70 (1990) ("*1990 Report*"). Similar conclusions were made in the *First Annual Video Competition Report. See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 9 FCC Rcd 7442, 7542-45 ¶¶ 204-12 (1994).

[394] Section 613(f)(2): "In prescribing rules and regulations under paragraph (1), the Commission shall, among other public interest objectives – (A) ensure that no cable operator or group of cable operators can unfairly impede, either because of the size of any individual operator or because of joint actions by a group of operators of sufficient size, the flow of video programming from the video programmer to the consumer."

editorial choices of multiple cable operators could "unfairly" impede the flow of video programming.[395] It found the Commission had not presented evidence that collusion was likely and therefore had not adequately supported its limits.

118. We ask whether Section 613(f)(2)(A) of the Communications Act requires the Commission to examine the possibility of joint action, in which firms act to maximize their joint benefits by reducing competition, either through overt collusion, which is generally prohibited by the antitrust laws,[396] or tacit collusion, without direct communication between the firms.[397] We also ask whether such an analysis would be consistent with the court's findings in *Time Warner II*. Because the language of the Act refers to cable operators' "joint actions," and because the economics and legal literatures (including the Horizontal Merger Guidelines)[398] acknowledge the possibility of tacit collusion in certain circumstances, we tentatively conclude that we should determine whether joint action[399] by cable operators is likely, and if we determine that it is likely, we should factor this into the analysis.

119. We note that an explicit agreement among firms in a given market may not be necessary for that market to be characterized by joint action. Such collusive behavior may arise as a result of "conscious parallelism" in the behavior of firms. Conscious parallelism can arise without any explicit agreement among firms, but simply as the result of a rational calculation by each firm of the consequences of its actions for competing firms, particularly taking into account the most likely reactions of those firms.[400] This kind of coordinated action is difficult to detect or control. As one court observed: "Tacit coordination is feared by antitrust policy even more than express collusion, for tacit collusion, even when observed, cannot easily be controlled directly by the antitrust laws. It is a central

[395] *Time Warner II*, 240 F.3d at 1134-36.

[396] In most cases, for example, communications between or among firms in order to fix prices is *per se* illegal.

[397] "Tacit collusion" is the standard term used in the economics literature used to refer to competing firms acting to maximize their joint benefits by reducing competition between them without directly communicating with each other. Other terms used are "conscious parallelism" and "tacit coordination." *See, e.g.*, Carlton and Perloff at 134; Marc Ivaldi, Bruno Jullien, Patrick Rey, Paul Seabright, and Jean Tirole, *The Economics of Tacit Collusion*, n.2, Final Report for DG Competition, European Commission, Institut D'Economie Industrielle (Toulouse) (Mar. 2003); F.M. Scherer and David Ross, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE, 265, 339 (3rd ed., 1990). The 1997 Horizontal Merger Guidelines use the broader term "coordinated interaction" in section 2.1 to refer to "actions by a group of firms that are profitable for each of them only as a result of the accommodating reactions of the others." It is a broader term because it refers to both tacit and express collusion. *1997 Horizontal Merger Guidelines*, section 2.1.

[398] *1997 Horizontal Merger Guidelines*, section 2.1. *See, e.g.*, Carlton and Perloff at 134; Ivaldi, Jullien, Rey, Seabright, and Tirole; Scherer and Ross at 205-06, ch. 7, 9; Herbert Hovenkamp, *Antitrust Law: An Analysis Of Antitrust Principles And Their Application*, XII ASPEN LAW & BUSINESS, 21 (1999).

[399] We focus our analysis on the likelihood of *tacit* collusion, since *overt* collusion is *per se* illegal under the antitrust laws. Scherer and Ross at ch. 9.

[400] *See, e.g.*, D. F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusal to Deal*, 75 HARV. L. REV. 655 (Feb. 1962) at 661; Scherer and Ross at 339-46.

object of merger policy to obstruct the creation or reinforcement by merger of such oligopolistic market structures in which tacit coordination can occur."[401]

120. We sought comment and economic evidence in the *2001 Further Notice* on whether cable operators have the incentives to engage in collusive behavior, and on what kinds of coordinated or collusive conduct would be relevant to the establishment of a limit.[402] We also sought information and evidence on whether cable operators' existing activities constitute collusion.[403] Cable commenters argue that cable operators lack an incentive to collude, and that this is evidenced by their past behavior, which shows that cable operators have not disfavored unaffiliated programming nor hindered the flow of programming.[404] They also argue that collusion to block entry by a rival programmer is a violation of the antitrust laws.[405] Time Warner argues that cable operators that are not vertically integrated do not have an incentive to collude, because they do not compete with each other.[406] Cable commenters also argue that reducing purchases of programming will not yield lower prices and that therefore cable operators have nothing to gain from colluding in order to jointly exercise monopsony power.[407] AT&T argues that the possibility that cable operators would jointly engage in vertical foreclosure is "particularly far-fetched," because joint action increases the costs and reduces the benefits of such an action.[408] Time Warner argues that the characteristics of the industry make collusion unlikely. It argues that the wide variation in the value of carrying particular programming to cable operators, and the complex non-public nature of program carriage contracts, "make reaching a formal or tacit agreement, policing it, and punishing cheating extremely difficult."[409]

121. We are not persuaded by the comments that joint action could not occur under certain circumstances. Much of the empirical evidence cited by the cable industry's economists is based on past performance of the market, when cable operators were much smaller than we are contemplating

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[401] *Federal Trade Comm'n v. H.J. Heinz Co.*, 246 F.3d 708, 725 (D.C. Cir. 2001) (citing Phillip E. Areeda, Herbert Hovenkamp & John L. Solow, *Antitrust Law* § 901b2 at 9 (rev. ed. 1998)).

[402] *2001 Further Notice*, 16 FCC Rcd at 17340 ¶ 56.

[403] *Id.*

[404] AT&T Comments at 66-67; AT&T Comments, Ordover Decl. at 77-82; AT&T Comments, Besen Decl. at 6-14; Time Warner Comments, Joskow and McLaughlin Decl. at 19-20; NCTA Comments at 17-20; Time Warner Comments at 20-22.

[405] Time Warner Comments, Joskow and McLaughlin Decl. at 20; Time Warner Comments at 21; AT&T Comments, Ordover Decl. at 77.

[406] Time Warner Comments, Joskow and McLaughlin Decl. at 19-20.

[407] *Id.* at 20; AT&T Comments, Ordover Decl. at 78; NCTA Comments at 19-20.

[408] AT&T Comments, Ordover Decl. at 79. In contrast, Time Warner believes that *only* vertically-integrated cable operators could have an incentive to collude. It argues that the legal restrictions on collusion, the wide variation in benefits for cable operators' carrying a program, and the complexity of program carriage contracts, make it difficult to collude. Time Warner Comments, Joskow and McLaughlin Decl. at 20.

[409] Time Warner Comments, Joskow and McLaughlin Decl. at 20; *see also* AT&T Comments, Ordover Decl. at 78.

today, although even then there were reports of various forms of joint action.[410] We also find unpersuasive arguments that cable operators lack an incentive to act jointly to gain advantage. If we determine that a cable operator of a sufficient size would find it profitable to engage in conduct of the types discussed above,[411] then the possibility exists that two or more smaller cable operators, whose combined size is also sufficiently large, would seek to maximize their profits by jointly engaging in this conduct. Because we remain concerned about the possibility of joint action, we seek further comment on whether cable operators have the incentive and ability to engage in joint action. If joint action is likely, we ask how many cable operators are likely to engage in joint action on any programming decision,[412] and how we should use the findings on these issues to devise a horizontal limit.

122. We first ask whether cable operators have an incentive to engage in joint action with respect to the acquisition of programming. If a single firm of sufficient size has an incentive to engage in anticompetitive behavior, does it necessarily follow that a group of smaller firms would have an incentive to collectively engage in similar behavior?[413] Assuming that a single firm did have an incentive to engage in anticompetitive behavior of some sort,[414] a key question that follows is whether cable operators are likely to have similar or divergent interests in their purchase of programming. The MVPD market appears to exhibit a number of characteristics that could provide an incentive for cable

[410] *See, e.g.*, Leo Hindery and Leslie Cauley, *The Biggest Game of All: The Inside Strategies, Tactics, And Temperaments That Make Great Dealmakers Great*, New York: The Free Press, 2003, at 185. ("Some years ago, Group W, the cable arm of Westinghouse, tried to launch a news service to compete with CNN. Cable operators locked arms – and turned Group W down flat. After months of trying to get carriage for the service and getting nowhere, Group W finally shut the whole thing down.")

[411] For example, the possibility of a cable operator using its bargaining power to force down the price for programming to below competitive levels, and engaging in vertical foreclosure to reduce entry and competition in the programming or distribution markets. *See* Sections II.C., *supra* (analysis of monopsony power, bargaining power, and vertical foreclosure).

[412] Clearly, the greater the number of cable operators that are likely to act jointly, the smaller the individual threshold size we should be concerned with. Thus if, for example, the threshold size for anticompetitive conduct were found to be 60% for one firm, the threshold assuming joint action by two firms would be 30%, by three firms 20%, and by four firms 15%, to achieve the same benefits (assuming that the threshold size remains constant as the number of firms acting jointly increases). The economics literature suggests that the ability and desire to act jointly decreases as the number of firms participating increases. Carlton and Perloff at 132-34; Scherer and Ross at 277-79.

[413] If so, it could be argued that any time we find that a single cable operator of a particular threshold size is likely to successfully engage in anticompetitive behavior, we should then consider whether multiple operators whose combined size achieves at least that threshold size, would likely engage in collusive behavior to achieve the same results.

[414] The question of whether a single firm of sufficient size would have an incentive to engage in anticompetitive behavior is discussed above in the sections on monopsony power, bargaining power, and vertical foreclosure. See Sections II.C., *supra*. *See also Time Warner II*, 240 F.3d at 1130 ("The Commission is on solid ground in asserting authority to be sure that no single company could be in a position singlehandedly to deal a programmer a death blow."); *Time Warner I*, 211 F.3d at 1320 ("Congress reasonably concluded that this concentration [in the cable industry] threatened the diversity of information available to the public and could form a barrier to entry of new cable programmers."). Aside from the question of a single firm's behavior, we ask whether it is possible that two or more firms could have an incentive to collude and jointly engage in anticompetitive behavior.

operators to coordinate their actions in the purchase of programming. Cable operators are dependent on quality programming to attract and keep subscribers; programming networks depend on MVPDs for distribution of their programming to consumers, the most important of which in most geographic markets are the cable operators; and cable operators compete against DBS and other entrants, but generally not against each other. These facts align cable operators' interests in such a way that makes joint action potentially desirable for them.[415] In certain aspects cable operators may have similar interests, while in others their interests may diverge. For example, it is likely that all cable operators want to minimize their payments for the programming networks they carry, or at least to extract the best value possible for the lowest price. Yet they may differ in the cost-quality tradeoffs they might accept, with some cable operators preferring lower-quality, lower-cost programming. They may also have a divergent interest in desiring to shift the burden of paying the fixed costs of programming onto other cable operators. Cable operators may also diverge in their interests in discriminating against rival networks. Some cable operators may not have the same interest in foreclosing an independent network as an operator who owns a rival affiliated network, and may in fact prefer to maintain competition in network programming. Certain practices may increase cable operators' incentives to act jointly. For example, joint ventures by cable operators in providing network programming potentially give the co-owners a shared incentive to discriminate against rival networks.[416] We seek comment on this analysis.

123. We also seek comment on whether cable operators have the ability to engage in joint action, and we seek economic analysis and evidence indicating the ease of engaging in joint action in this market. Some general characteristics of the industry may facilitate joint action. The MVPD market is highly concentrated with high barriers to entry by new competitors and an absence of close substitutes for the services both bought and sold by the industry. These characteristics are similar to the general characteristics described in the economic literature as leading to either overt collusion or conscious parallelism in behavior.[417]

124. Other general characteristics of the industry may make joint action more difficult. The product purchased, network programming, is heterogeneous between networks. Therefore establishing a

[415] In certain key aspects, much of the discussion of the theory of collusion in the economics literature does not apply to this market. While in the usual discussion of a cartel selling a good, each member's sales will potentially reduce the sales of the other members, here, because the product is characterized by non-rivalrous consumption, each purchase does not reduce the quantity available, or the purchases by others, of the product. In addition, cable operators do not compete with each other, so they cannot gain market share by cheating on the cartel.

[416] Many cable operators participate in joint ventures to provide network programming. For example, Cox Communications and Advance/Newhouse Communications each own 25% of Discovery Communications, which owns cable networks such as the Discovery Channel, Animal Planet, and TLC. See 11th Annual Report, 20 FCC Rcd at 2874-76 Appendix C, Table C-1. See also Annys Shin, *Big Discovery Shareholders Refuse to Join Liberty Spinoff*, WASHINGTON POST, May 13, 2005, at E1.

[417] *See* Pepell, Richards and Norman, *Industrial Organization* at 383. These general characteristics are as follows: (1) there are very few substitutes available to consumers for the products sold (or bought) by the firms in the market (*i.e.*, the demand curves for the products are relatively inelastic); (2) there is little or no prospect of competitive entry into the market; (3) the cost of reaching a cooperative agreement among firms in the market is small due to the high level of industry concentration, the small number of firms in the market, the similar cost conditions among the firms and/or the lack of significant product differentiation among the firms; (4) the cost of maintaining a cooperative agreement among the firms is also small due to frequent interaction among the firms; and (5) market conditions tend to be relatively stable.

uniform price schedule for the purchase of all programming[418] would be very difficult.[419] However, each programmer's product (*i.e.*, its programming network), which is offered to all MVPDs, is homogenous, providing cable operators the opportunity to engage in joint action with respect to the price paid for that network. The use of private negotiations, with non-public terms of agreement, would appear to make it very difficult for cable operators to tacitly engage in joint action, at least in terms of prices. The complexity of these agreements, and the tendency to specify lower per-subscriber prices for larger purchases of programming in these agreements, also mitigate against joint action.[420] Joint action for the purpose of vertical foreclosure of rival networks, however, will not be hindered by these practices, since network carriage is easy to observe.

125. We seek comment on the harms (or benefits) that could be caused by joint action. We do not wish to promulgate regulations that prevent beneficial joint action, but we are concerned nonetheless about the possibility for harmful joint action. Some joint actions may harm consumers by making the potential harms arising from horizontal concentration possible at lower levels. Joint action can be particularly harmful because it creates the inefficiency attendant to a monopoly, but denies consumers the efficiencies that might result from a merger.[421] In addition, joint action that seeks to shift costs onto rival MVPDs or to favor affiliated programming over unaffiliated programming distorts the market and denies consumers the benefits of fair competition. On the other hand, some forms of joint action among cable operators benefit consumers and are desirable. For instance, joint action to save struggling networks or joint ventures to launch new networks may preserve or increase the diversity and quality of programming available to consumers.[422] The effects of other actions are indeterminate in that they may benefit consumers, but may also harm them. For instance, joint bargaining for lower programming costs may lower cable operator costs and allow them to charge lower prices, but it may also harm programmers or MVPD rivals by reducing the amount and quality of programming available, and thus deny consumers quality programming or the benefits of competition. We seek comment on the likelihood that joint action will impede the flow of programming, either by forcing down the price of programming paid by cable operators to a level that reduces the quantity and/or quality of programming, or by foreclosing entry by either rival unaffiliated network programmers or by competing MVPDs.

(3) The Impact of Independent Actions by Multiple Cable Operators

126. We ask whether there are theories addressing how multiple cable operators that are acting independently could unfairly impede the flow of programming, as discussed in *Time Warner II*.

[418] Price-fixing is a traditional goal of cartels.

[419] Time Warner Comments, Joskow and McLaughlin Decl. at 20.

[420] *Id.*

[421] *See* John E. Kwoka, Jr. and Lawrence J. White, THE ANTITRUST REVOLUTION, 167 (3rd ed., 1999).

[422] "For example, on several occasions, MSO investment has enabled a programming service to remain in operation when it otherwise would have been forced to discontinue its programming. MSO commenters emphasize that the cable industry provided critical financial support to sustain both Turner Broadcasting (owner of WTBS and CNN) and C-SPAN. In addition, NCTA quotes Discovery Channel Chairman John S. Hendricks' statement that cable operators' investment 'rescue[d]' his programming service." *1990 Report,* 5 FCC Rcd at 5009 ¶ 83 (citations omitted).

The open field approach the Commission used in the *1999 Cable Ownership Order* assumed that multiple avenues of entry were necessary to ensure the unimpeded flow of programming. The Commission pointed out that a 30% limit would ensure that there were at least four cable operators. The *Time Warner II* court held that the Commission had failed to demonstrate that the legitimate, independent editorial choices of multiple cable operators could "unfairly" impede the flow of video programming. In the *2001 Further Notice* we sought comment on the possible harms that could arise from high levels of horizontal concentration.[423] We also sought comment on the possible effects of the level of concentration on the amount and diversity of programming.[424] AT&T argued that if there are at least two outlets and no collusion, a programmer's failure to reach homes is the result of "legitimate, independent editorial choices" and cannot be deemed unfair.[425] Comcast argues that cable operators are unable to exercise editorial oversight and impair the ability of a program producer to access viewers through broadcast stations because the stations can secure carriage through the exercise of their must-carry rights.[426] The Writers Guild of America argues that consolidation in program production and distribution has already eroded quality and creativity and reduced diversity.[427] We seek comment on whether there are analytical approaches that would establish whether multiple cable operators, acting independently and with no attempt to overtly or tacitly coordinate their actions with other cable operators, could harm the market or the ability of programmers to gain carriage. We further ask whether such approaches would be consistent with the court's holding in *Time Warner II* that promoting diversity alone is not a sufficient basis for crafting a limit designed to address multiple cable operations' independent editorial choices.[428]

127. We seek comment on whether and to what extent the independent decisions of cable operators regarding carriage of new networks should be considered, and how the actions of independent cable operators, not acting in overt or tacit collusion, could cause harm to the market and to independent programmers. We seek comment on the ability of cable operators to identify networks that will be successful, and the cost to programmers and to consumers of cable operator errors in predicting the value of new networks. We also request information on whether the existence of two powerful, incumbent DBS operators affects these relationships.[429]

(4) The Impact of Vertical Integration

128. In the *2001 Further Notice* we asked whether large cable operators with programming interests would have an incentive to unfairly favor affiliated programming over unaffiliated programming, and whether they could withhold their affiliated programming from competitors in order

[423] *2001 Further Notice*, 16 FCC Rcd at 17340 ¶ 57.

[424] *Id.* at 17330-31 ¶ 35.

[425] AT&T Comments at 13-14.

[426] Comcast Comments at 25-26. *See* Communications Act §§ 614-615, 47 U.S.C. §§ 534-535.

[427] Writers Guild of America Comments at 5.

[428] *See Time Warner II*, 240 F.3d at 1135.

[429] Several independent networks, such as CSTV, NFL Network and Reality TV, secured their first distribution deals on DBS systems before securing distribution on cable systems.

to disadvantage or prevent entry by competing MVPDs, such as cable overbuilders.[430] We also asked if they could use their size to gain large programming license fee discounts and exclusive contracts with nonaffiliated programming, and whether this would harm rival MVPDs, lessen competition, and reduce the flow of programming to consumers.[431] We sought comment and empirical evidence on whether these problems have occurred in the past or are likely to occur if cable operators are not constrained by an ownership limit.[432] As discussed below, we find the studies and analysis submitted in the record on the issue of vertical foreclosure to be insufficient evidence to support a particular horizontal limit on subscribership, and we seek further comment and empirical evidence on the likelihood of vertical foreclosure and the ability of a horizontal limit to reduce that likelihood.

129. We seek comment and evidence on whether a large cable operator that reaches a threshold size will have the incentive and ability to engage in consumer foreclosure. We further ask whether an open field approach, such as that employed by the Commission in the *1999 Cable Ownership Order*, in conjunction with our program access rules,[433] would be sufficient to ensure that a large cable operator would not be able to successfully engage in vertical foreclosure.

(a) Empirical Studies of Foreclosure

130. In response to the *2001 Further Notice*, empirical studies were submitted to the Commission that examined whether vertically integrated cable operators have favored their affiliated programming services and are likely to do so in the future.[434] CFA alleges that large cable operators already engage in foreclosure. CFA cites several examples of alleged abuses.[435] The specific allegations of abuses that CFA raises, however, are either anecdotal or unsubstantiated. Most of the anecdotal examples occurred several years or even decades ago. CFA also points to two studies which examined the effects of vertical integration on the carriage of cable programming, and found that vertically integrated cable operators may have favored their affiliated programming services in the past. For example, using an econometric model of the cable TV industry, Chipty found that vertically integrated cable operators tend to exclude programming services provided by their rivals.[436] Similarly, Waterman and Weiss empirically examined the effects of vertical integration in the cable industry. They found that vertically integrated cable operators tend to favor the programming providers with

[430] *2001 Further Notice*, 16 FCC Rcd at 17328-29 ¶ 29.

[431] *Id.* at 17329 ¶ 30.

[432] *Id.*

[433] *See* 47 C.F.R. §§ 76.1000-1003.

[434] AT&T Comments, Besen Decl. at 10-14; Time Warner Comments, Joskow and McLaughlin Decl. at 2-7.

[435] CFA reports examples where MVPDs were denied access to New England Cable News and TVLand by AT&T Broadband's Headend in the Sky. CFA Comments at 128-29.

[436] Tasneem Chipty, *Vertical Integration, Market Foreclosure, and Consumer Welfare in the Cable Television Industry*, 91 THE AMERICAN ECONOMIC REVIEW 3, 428-53 (Jun. 2001) (Tasneem Chipty, *Vertical Integration*).

which they have an ownership affiliation.[437] They also found that increasing channel capacity reduces, but does not eliminate, this tendency.[438]

131. Although these academic papers indicate that some foreclosure may have occurred in the past, they use data from a time when channel capacity was more constrained. For instance, Waterman and Weiss chose to examine cable systems with 54 or more channels separately, because this represented the state-of-the art technology at the time, and found that systems with more channels carried more networks, including rivals to affiliated programming.[439] Today, most cable subscribers have access to more than 54 channels, and consumers purchasing digital tiers often have access to over 100 channels of programming. Given the Waterman and Weiss finding that the tendency to favor affiliated programming diminished with increased channel capacity, combined with the increase of channel capacity since their study was performed, we ask whether it is possible to conclude that the behavior they observed is likely to continue. The data used by Chipty are also quite old, covering 1991, and examine home shopping networks, which may present cable operators with different financial incentives than other types of networks.[440] In addition, the significant increase in retail competition from DBS could raise the cost to cable operators of favoring affiliated networks, and thus act as a deterrent to a policy of foreclosure.[441] Since the industry has undergone tremendous change since these studies were performed, we tentatively conclude that these studies are of little probative value in our analysis.

132. Cable operators have submitted studies that purport to show that they have no theoretical incentive to favor affiliated programming networks and not carry attractive unaffiliated programming networks;[442] that programmers could use alternative distribution channels (such as broadcast TV, foreign MVPDs, and DVD sales) if a cable operator attempted to foreclose rival networks;[443] that larger cable operators have tended to have more channel capacity and carry more channels;[444] that cable operators have not engaged in foreclosure in the past, and there has been plentiful entry;[445] and that a cable operator's incentive to foreclose shrinks as its size increases.[446] They argue

[437] Waterman and Weiss at 101. Waterman and Weiss examine both premium networks and basic cable networks.

[438] *Id.*

[439] Waterman and Weiss found that as capacity expands, vertically integrated systems tend to increase the carriage of all networks, including those of rival, unaffiliated networks. Waterman and Weiss at 93, 100-01.

[440] *See* Chipty at 429, 432-33, 436-39.

[441] *See* AT&T Comments at 51; NCTA Comments at 13-14. We discuss CFA's argument that DBS does not act as a constraint on cable operators' behavior in ¶ 109 and 110, *supra.*

[442] AT&T Comments, Besen Decl. at 6-8; AT&T Comments, Ordover Decl. at 48-52.

[443] AT&T Comments, Ordover Decl. at 52-65. Ordover focuses his analysis on program developers' ability to find outlets to distribute their programming, and not on the ability of a new programming network to enter the market.

[444] Time Warner Comments, Joskow and McLaughlin Decl. at 5-6.

[445] *Id.* at 2-4; AT&T Comments, Besen Decl. at 10-14.

[446] AT&T Comments, Besen Decl. at 14-20; AT&T Comments, Ordover Decl. at 48-52.

that this evidence demonstrates that an increase in cable concentration will not increase the likelihood of foreclosure and reduce the flow of programming.[447]

133. For a number of reasons, we tentatively conclude that these studies fail to prove that future increases in cable concentration will not increase the incentives and ability of vertically integrated cable operators to engage in vertical foreclosure. First, much of the evidence presented on past entry looks solely at aggregate data. If, indeed, the programming network market is segmented according to genre and type of programming, then a policy of vertical foreclosure might only be profitable in particular submarkets. Second, evidence that cable operators have not engaged in foreclosure in the past does not prove that they will not do so in the future, especially if they are still growing in size. The Commission has previously found,[448] and the cable operators' evidence does not refute, that only if the cable operators exceed a particular threshold, will a policy of foreclosure likely be successful.[449]

134. Third, the argument that the cable operator's incentive to foreclose shrinks as the cable operator grows in size, which is integral to AT&T's analysis,[450] fails to take into account the key point that the cable operator's ability to successfully foreclose rival programming networks grows with each increase in subscriber reach. If the likelihood of engaging in foreclosure depends not just on the benefit if successful, but also on the likelihood of success, then an increase in size may make a policy of foreclosure viable where such a policy was previously unprofitable.

135. Fourth, while alternative distribution channels do exist, it is not certain that these channels are available to a new programmer that is entering the market,[451] nor that they generate the kinds of revenue necessary to support high quality original programming.[452] Some of these distribution channels may not be appropriate for serial programming such as a TV series, or programming designed for a particular genre or niche. We ask for more evidence that these alternative distribution channels are available to the kinds of new programming found on cable TV, and will provide sufficient revenues to provide a means of entering the market. We also ask whether a programming network could make use of these alternative distribution channels for distributing its regular programming, as opposed to a program producer attempting to distribute a single piece of programming, such as a movie.

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[447] AT&T Comments, Besen Decl. at 14-21; AT&T Comments, Ordover Decl. at 48-68.

[448] *1999 Cable Ownership Order*, 14 FCC Rcd at 19119 ¶ 55.

[449] Since there is no data on the behavior of domestic cable operators that exceed the Commission's limits, because it has not happened yet, it appears that empirical evidence can say little about the effect of allowing operators to grow larger than their current size.

[450] AT&T Comments, Besen Decl. at 14-20; AT&T Comments, Ordover Decl. at 48-52.

[451] Some channels, such as DVD sales and overseas markets, may be open mostly to programming that has proven itself through an established early window channel. Distribution on a programming network is important not just for generating immediate revenues, but also for advertising the programming, by creating a reputation for the program. This generates further revenues in DVD sales and overseas showings.

[452] *See* ¶ 82, *supra*.

136. We find that cable operators potentially have an incentive to engage in vertical foreclosure, and that the evidence presented about their past behavior does not rule out the possibility that a cable operator of larger size could, in the future, have the incentive and ability to discriminate against or foreclose an unaffiliated network. We seek comment on independent analyses that have been performed on this issue since the close of the comment period in the *2001 Further Notice*.[453] Studies submitted by commenters should be based on current technological and market conditions. Studies should predict the likelihood of vertical foreclosure if there were growth in industry concentration. The changes in both cable operators' incentive and ability to engage in vertical foreclosure should be taken into account in any studies.

3. Potential Benefits of Horizontal Concentration

137. In the *2001 Further Notice*, we asked about the benefits of horizontal concentration, such as economies of scale, development of new programming, digital deployment, and investment in non-video services.[454] Some commenters have claimed that concentration would bring such benefits.[455] They have not attempted to quantify these benefits or otherwise substantiate their claims in any meaningful fashion. We have no evidence on the record that would help us identify these benefits or evaluate them at concentrations higher than those that exist today. Further, many of the purported benefits are emerging at current levels of concentration.[456] Therefore, although we discuss some theoretical benefits of concentration below, at this point we have received no conclusive evidence that additional concentration is necessary to produce these benefits.

138. Commenters argue that the largest operator in a concentrated market may enjoy efficiencies as a result of economies of size and scale.[457] The fixed costs of providing service can be spread over a larger customer base. One study referenced by commenters suggests that cable operator growth is due to increased efficiencies, and that bargaining power does not increase with size.[458] Even if a cable operator's bargaining power does increase with size, the operator may pass some of its savings on to consumers in the form of lower rates (or smaller rate increases). Another study suggests that large operators do pass a small percentage of their programming cost savings onto consumers.[459] The *2001*

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[453] *See, e.g.*, Michael E. Clements and Amy D. Abramowitz, *Ownership Affiliation and the Programming Decisions of Cable Operators*, available at http://web.si.umich.edu/tprc/papers/2004/289/TPRC2004.pdf and General Accounting Office, *Issues Related to Competition and Subscriber Rates in the Cable Television Industry* (Oct. 2003).

[454] *2001 Further Notice,* 16 FCC Rcd at 17331-32, ¶¶ 36-40.

[455] *See, e.g.*, AT&T Comments at 69-70.

[456] *See, e.g., 11th Annual Report*, 20 FCC Rcd at 2779-92 ¶¶ 36-52; AT&T Comments at 24.

[457] *See* Time Warner Comments, Joskow and McLaughlin Decl. at 14-16.

[458] Chipty and Snyder at 326; Time Warner Comments, Joskow and McLaughlin Decl. at 15.

[459] George S. Ford and John D. Jackson, *Horizontal Concentration and Vertical Integration in the Cable Television Industry*, REVIEW OF INDUSTRIAL ORGANIZATION, Vol. 12 (1997).

Price Survey, however, found the opposite, that cable rates increase with cable operator size.[460] Other studies have reached the same conclusion.[461]

139. AT&T suggests that cable ownership rules could impede cable operators from gaining the scale necessary to offer high-speed Internet, digital cable, and telephony services, potential benefits to consumers.[462] High-speed Internet and digital cable services, however, have been deployed rapidly throughout the country, by large and small cable operators alike,[463] and AT&T offers no evidence that speed of deployment would increase with increased industry concentration. NCTA reports that 91% of households passed by cable now have access to cable advanced services.[464] We tentatively conclude that further concentration is not necessary to speed development and delivery of these services. We seek comment on this tentative conclusion. We also seek comment on the relevance of the deployment of high-speed Internet and telephony services to this proceeding, since they generally do not involve the goals specified in Section 613(f)(2), in particular that cable operators do not unfairly impede the flow of programming to consumers, and do not favor affiliated programming or unreasonably restrict the flow of affiliated programming to other video distributors.

140. Commenters argue that high levels of concentration may provide direct benefits to programmers, in particular by better enabling programmers to recover their costs.[465] Programming involves high fixed costs to produce, and low marginal costs for distribution. Uncertainty about whether the programmer will gain sufficient carriage to recover its fixed costs can act as a barrier to entry. Time Warner points out that a carriage commitment from a large cable operator can reduce this uncertainty, and make entry easier.[466]

141. Commenters also argue that increasing concentration can help solve the potential problem of multiple small cable operators attempting to free ride on the payments made by the other cable operators, in which each cable operator forces down the price it pays to a level that fails to cover an adequate share of the fixed costs.[467] They state that each cable operator would prefer to pay just the marginal cost of providing the programming, and let the other buyers pay for the fixed costs of producing the programming. If, instead, there were a single buyer that was large enough that its purchasing decision would affect the viability of a programmer, then it would have to consider the

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[460] *See 2001 Price Survey,* 17 FCC Rcd at 6318 ¶ 45.

[461] *See* General Accounting Office, *The Effects of Competition from Satellite Providers on Cable Rates* (Jul. 2000); W. M. Emmons and R. A. Prager, *The Effects of Market Structure and Ownership on Prices and Service Offerings in the U.S. Cable Television Industry*, RAND JOURNAL 732-50 (Winter 1997).

[462] AT&T Comments, Ordover Decl. at 17-18, 70-73.

[463] *10th Annual Report*, 19 FCC Rcd at 1636-48 ¶¶ 39-60.

[464] *National Cable & Telecommunications Association 2004 Year-End Industry Overview* at 5.

[465] Time Warner Comments, Joskow and McLaughlin Decl. at 14-15.

[466] *Id.*

[467] Raskovich Comments; Raskovich, *Pivotal Buyers and Bargaining Position*; Time Warner Comments, Joskow and McLaughlin Decl. at 15-16; AT&T Comments, Ordover Decl. at 39-45.

effects of the price it demands on the financial viability of the programmer, and hence the likelihood the programmer will stay in the market. According to this view, a large "pivotal" buyer will be less likely to demand discounts that threaten the viability of the programmer.[468]

142. The realization of this potential benefit, however, depends upon several factors that are not likely to occur in practice. In a highly concentrated industry, operators may demand large discounts from programming networks because of the market power they enjoy. Because MVPDs depend upon programmers for content, even a monopsonist MVPD would not generally want to demand prices so low that they harm programming networks' ability to provide programming. In order to ensure that programming networks receive sufficient payment to cover their fixed costs, however, the operator would have to have an intimate knowledge of the cost structure of particular networks, which is unlikely in practice. As a result, even a pivotal buyer might unwittingly force video programming networks to accept compensation that does not cover all of their relevant costs, thus reducing their ability to provide high quality programming or, possibly, forcing some out of business.[469] The argument also assumes that buyers want to ensure the financial viability of their suppliers. Large buyers, however, may decide that pursuing a policy of forcing prices down is more profitable, because the resulting reduction in purchasing costs outweighs the loss of some higher-cost programmers that may be forced to exit the business. Being a pivotal buyer may also give the cable operator an incentive to vertically integrate and favor its affiliated programming networks, since it can ensure that no competing programming networks can enter the market. For these reasons, we tentatively conclude that commenters have not demonstrated that allowing a cable operator to become large enough to become a pivotal buyer will improve the flow of programming, and should therefore be counted as a benefit of increased horizontal concentration.

D. Vertical Limit

143. Section 613(f) of the Communications Act directs the Commission to "prescribe rules and regulations establishing reasonable limits on the number of channels on a cable system that can be occupied by a video programmer in which a cable operator has an attributable interest."[470] Among other things, in setting the limit, the Commission is directed to "ensure that cable operators affiliated with video programmers do not favor such programmers in determining carriage . . ."[471] and to refrain from "impos[ing] limitations which would impair the development of diverse and high quality video programming."[472] In 1993 the Commission found that a 40% limit on the number of activated channels that can be occupied by affiliated video programming services struck an appropriate balance between the goals of reducing the incentive and ability of vertically integrated cable operators to favor their affiliated

[468] *Id.*

[469] Offering higher payments to keep just the high cost networks in business is not likely to solve the problem here, because cable operators may not know which networks are high cost. If they offered higher payments to all networks that are high cost, all networks would claim to be high cost.

[470] *See* 47 U.S.C. § 533(f)(1)(A)-(B).

[471] 47 U.S.C. § 533(f)(2)(B).

[472] 47 U.S.C. § 533(f)(2)(G). The Commission is also directed to consider the other public interest objectives listed in Section 613(f)(2). *See* 47 U.S.C. § 533(f)(2)(A), (C)-(F).

programming, increasing diversity, and permitting cable operators to realize the benefits and efficiencies associated with vertical integration.[473]

144. The *Time Warner II* decision reversed and remanded the 40% channel occupancy limit, finding that the Commission had failed to justify its vertical limit with record evidence, and had failed to adequately consider the benefits and harms of vertical integration or current MVPD market conditions in its analysis.[474] In the *2001 Further Notice*, the Commission sought comment on how it could fashion meaningful and relevant channel occupancy limits given the changes that have occurred in the MVPD industry.[475] The *2001 Further Notice* requested comment on the economic underpinnings of the statutory requirement, and asked commenters to address the economic basis underlying the concern with vertical integration and market foreclosure.[476]

145. In response to the *2001 Further Notice*, several commenters assert that the Commission should not adopt any channel occupancy rules and should not limit the carriage of affiliated programming.[477] Cablevision argues that given the technological advancements and today's "vigorously competitive" MVPD marketplace, no channel occupancy limit will survive constitutional scrutiny.[478] NCTA contends that competition in the sale of video programming has effectively eliminated incentives to discriminate, and that if a cable operator refuses to carry attractive programming services, it will not only fail to attract subscribers and fail to maximize revenue from existing subscribers, it may lose subscribers.[479] Other commenters, however, assert that horizontal concentration and vertical integration in the MVPD industry require that the Commission enact and enforce a strict channel occupancy limit.[480] CFA argues that vertical integration of cable firms facilitates the imposition of higher costs on programming rivals or a degradation in their quality of service (by withholding desired programming) to gain an advantage.[481] Writer's Guild contends that the Commission should not only retain the existing 40% channel occupancy limit, but should strengthen it through ownership limits on both cable and broadcast networks, regardless of whether the owner is a cable operator.[482]

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[473] *1993 Second Report and Order*, 8 FCC Rcd at 8593-95 ¶ 68.

[474] *Time Warner II*, 240 F.3d at 1137-39.

[475] *2001 Further Notice*, 16 FCC Rcd at 17350-51 ¶ 81.

[476] *Id.*

[477] *See* Cablevision Comments at 5-11; Comcast Comments at 29-33; NCTA Comments at 20-23; Time Warner Comments at 35-37.

[478] Cablevision Comments at 5.

[479] NCTA Comments at 11, 14.

[480] *See* CFA Comments at 93-105; Writer's Guild Comments at 15.

[481] CFA Comments at 96-97.

[482] Writer's Guild Comments at 15.

146. Both Congress and the Commission have long recognized that vertical integration produces efficiencies in the production, distribution, and marketing of video programming, enabling cable operators to make additional investments in both distribution plant and programming.[483] Congress and the Commission, on the other hand, also have been concerned that such integration may provide an incentive for cable operators to engage in strategic, anticompetitive behavior.[484] The economics literature provides support for both propositions: vertical integration between programmers and MVPDs can result in both efficiency gains (which can lower prices) and market foreclosure (which can lead to higher prices).[485] While the public interest objectives enumerated in Section 613(f)(2)(A)-(G) direct that we take account of the risks and benefits of vertical integration in the cable industry together with prevailing market conditions in choosing what limit is "reasonable," the record before us provides no new evidentiary support or metrics with which to better calculate a limit that is "reasonable" in today's marketplace. None of the comments filed in response to the *2001 Further Notice* yielded a sound evidentiary basis for either retaining the current 40% vertical limit or for setting a different limit. Nonetheless, we disagree with commenters who assert that the Commission should not adopt any channel occupancy rules and should not limit carriage of affiliated programming.[486]

147. The statute expressly directs the Commission to conduct a proceeding and "to prescribe rules and regulations establishing reasonable limits on the number of channels on a cable system that can be occupied by a video programmer in which a cable operator has an attributable interest."[487] Further, in the examination of the scope of our legal authority under Section 613(f), we found that the Commission lacks express authority under Title VI to forbear from the implementation and enforcement of its provisions.[488] Thus, we are bound to follow Congress' statutory directive that a vertical limit be set, and the challenge in implementing Section 613(f)(1)(B) in light of *Time Warner II* remains one of finding and adequately justifying a reasonable numerical limit that permits cable operators to enjoy the benefits of vertical integration, protects against any potential harms of discrimination against rival programming that may exist, and takes account of the vastly changed technological and competitive landscape that characterizes today's MVPD marketplace, while not burdening substantially more speech than

[483] *See Senate Report* at 26-27, 81; *House Report* at 41; *1995 Vertical Reconsideration Order*, 10 FCC Rcd at 7365-66 ¶¶ 5-6; *1993 Second Report and Order*, 8 FCC Rcd at 8584-85 ¶¶ 43-44; *Initial Notice*, 8 FCC Rcd at 218-19 ¶¶ 44-45.

[484] *See Senate Report* at 25-27, 81; *House Report* at 41; *1995 Vertical Reconsideration Order*, 10 FCC Rcd at 7365 ¶ 4; *1993 Second Report and Order*, 8 FCC Rcd at 8583-84 ¶¶ 41-42; *Initial Notice*, 8 FCC Rcd at 218 ¶¶ 42-43. *Cf. generally Program Access Order*, 17 FCC Rcd at 12135-50 ¶¶ 24-55 (discussing ability and incentive of vertically integrated programming networks to favor affiliated cable operators).

[485] *See* Tasneem Chipty, *Vertical Integration, supra.* Using an econometric model of the cable industry, Chipty found that the harmful effects of integration due to foreclosure are offset by the efficiency-enhancing effects of integration. *See also* Michael E. Clements and Amy D. Abramowitz, *Ownership Affiliation and the Programming Decisions of Cable Operators*, available at http://web.si.umich.edu/tprc/papers/2004/289/TPRC2004.pdf.

[486] *See* Cablevision Comments at 5-11; Comcast Comments at 29-33; NCTA Comments at 20-23; Time Warner Comments at 35-37.

[487] *See* ¶ 48, *supra.*

[488] *Id.*

necessary.[489] We again request comment and empirical and theoretical evidence to assist in the development of reasonable limits and in the articulation of how such limits address the statutory goals.

1. Defining the Market

148. We seek comment on how to define the programming and distribution markets for the purposes of determining an appropriate limit on channel occupancy by vertically integrated cable operators. In the *2001 Further Notice* we proposed that programming could be classified into two broad categories, general entertainment and niche programming.[490] We also suggested that programming networks vary according to whether they focus on a particular subject or are more general purpose, whether they gain a large nationwide audience, how narrowly focused they are in a particular subject, and whether they are national or regional in scope.[491] We received little comment on whether these differences in the types of programming networks affect a cable operator's incentive and ability to engage in vertical foreclosure. As we discuss above, we ask whether the market for programming should be segmented according to the type of programming network involved. Could the incentive and ability of cable operators to engage in vertical foreclosure vary according to the type of programming network? We note that a channel occupancy limit only ensures that cable operators carry some unaffiliated programming networks. It does not prevent a cable operator from discriminating against any specific programming network. If we were to determine that the incentive and ability for a cable operator to discriminate varies according to the submarket involved, how could a channel occupancy limit prevent discrimination against rival programming networks?

149. We also seek comment on whether placement of networks on different tiers affects how vertical foreclosure might be implemented by a cable operator, and whether our rules should be applied on a tier-specific basis. Networks are often placed on different tiers, or in different packages of programming made available to consumers. Also, cable operators typically have a much greater channel capacity on their digital tiers, but fewer customers have access to this tier, compared to the analog portions of their network. We ask whether our analysis should take into consideration the existence of tiers and packages, with their differences in technical characteristics, numbers of channels, and pricing. We also ask whether a vertical limit should be applied on a tier-specific or package-specific basis.

2. Potential Harms of Vertical Integration

150. In the *2001 Further Notice* we asked commenters to "address the economic basis underlying the concern with vertical integration and market foreclosure." We asked whether the necessary conditions existed in the MVPD industry for cable operators to profitably engage in vertical foreclosure, and for this foreclosure to be harmful to the flow of programming.[492] We also sought comment on whether current and likely future developments in the MVPD market will mitigate past

[489] *See Time Warner II*, 240 F.3d at 1137.

[490] *2001 Further Notice*, 16 FCC Rcd at 17321 ¶ 9.

[491] *Id.* at 17322-23 ¶¶ 12-13.

[492] *2001 Further Notice*, 16 FCC Rcd at 17350-51 ¶ 81.

concerns regarding the ability of cable operators to discriminate against unaffiliated programming networks.[493]

151. We discussed above how vertical integration can create an incentive for a large vertically integrated cable operator to engage in foreclosure, by not carrying a rival programming service that competes with its affiliated programming service.[494] We also discussed the types and causes of vertical foreclosure, and the harms that this can cause.[495]

152. In their responses to the *2001 Further Notice*, cable operators point to market factors that make vertical foreclosure unlikely. First, they state that a programmer can obtain carriage despite a cable operator's preference not to carry the programmer's service under several scenarios:[496] (1) where the programmer is seeking carriage of a broadcast network entitled to "must carry" status under the Commission's rules;[497] (2) where the programmer is seeking carriage of a "must have" programming network that consumers demand; and (3) where the programmer is seeking carriage of a service pursuant to the Commission's leased access rules.[498] Second, they assert that discrimination on the basis of affiliation is already targeted by the program access rules.[499] Third, they argue that competition from alternative MVPDs such as DBS makes it unprofitable for a cable operator to engage in foreclosure, since failure to carry unaffiliated popular networks will drive customers to other MVPDs.[500] Lastly, they argue that market conditions have changed to make foreclosure unlikely, citing in particular the increase in channel capacity of cable systems.[501]

153. Nonetheless, the terms of Section 613(f)(1)(B) require that we establish reasonable limits on channel occupancy, and we therefore again seek empirical, theoretical and anecdotal evidence to support our effort to carry out this statutory mandate.

3. Potential Benefits of Vertical Integration

154. In the *2001 Further Notice* we asked commenters to discuss the benefits of vertical integration, and the extent to which these benefits mitigate or outweigh the harms caused by cable operators favoring affiliated programming.[502] We asked how these benefits should affect the fashioning

[493] *Id.* at 17351-52 ¶ 83.

[494] *See* Section II. C. 2. c. (4), *supra*.

[495] *Id.*

[496] AT&T Comments at 50-51; Comcast Comments at 25-28.

[497] 47 C.F.R. § 76.56.

[498] 47 C.F.R. § 76.701.

[499] Time Warner Comments at 35-37 (citing 47 U.S.C. § 536(a)(3); 47 C.F.R. §76.1301(c)).

[500] Cablevision Comments at 7-10; NCTA Comments at 21.

[501] Cablevision Comments at 7-9.

[502] *2001 Further Notice*, 16 FCC Rcd at 17351 ¶ 82.

of vertical limits and restraints. We sought comment on what impact relaxing or modifying the current limit of 40% might have on producing economic efficiencies, fostering innovation in services, and encouraging greater investment in and development of diverse and responsive programming.[503] We also asked whether the existence of these benefits means that we should employ alternative regulatory restrictions, other than imposing limits on cable operators' carriage of affiliated programming, to prevent foreclosure.[504]

155. In response, cable commenters argued that vertical integration provides efficiencies, by increasing the likelihood of financing for new networks and reducing the likelihood of "hold-up."[505] They also argue that it eliminates the problem of double marginalization, which occurs when both upstream and downstream firms attempt to exercise market power by charging above-cost prices.[506] Commenters failed, however, to demonstrate that the benefits of vertical integration will always exceed the potential harms from vertical foreclosure. They also failed to identify those circumstances in which the benefits from a particular vertical investment or merger, for example a cable operator investment intended to create a new programming network in an underserved market niche, are large enough to warrant exemption from the vertical limits. We thus seek further comment on whether and when the benefits of vertical integration mitigate the potential harms that might result, either generally or for particular vertical combinations.

156. The literature indicates that historically content providers have received benefits from vertical integration with distributors.[507] In the multichannel video programming industry, three kinds of benefits can result from vertical integration: transaction efficiencies, enhanced availability of capital and creative resources, and risk reduction through signaling commitment.[508] We examine each below.

157. *Transaction Efficiency*. Vertical integration may increase transaction efficiency by allowing more efficient contracting between entities. An affiliation agreement between cable operators and programming networks may reduce the incentive of each to engage in post-contractual opportunistic behavior.[509] Such opportunistic behavior is especially likely to occur if market conditions are likely to

[503] *Id.* at 17352 ¶ 84.

[504] *Id.* at 17351 ¶ 82.

[505] Time Warner Comments, Joskow and McLaughlin Decl. at 22. (For a discussion of the problem of "hold-up," *see* ¶ 94, *supra.*)

[506] *Id.* at 23.

[507] *See* Waterman and Weiss at 45-54.

[508] *Id.* at 47-49.

[509] An example of opportunistic behavior on the part of the cable operator would be failure to promote an unaffiliated programming network. Opportunistic behavior by a programmer might involve reducing quality or providing content of a different sort than what was promised (for example, promising to provide programming for a niche that was previously unserved, and then switching to a genre with a larger audience). In addition, one of the parties could in the future attempt to take advantage of the other party's committed sunk costs by demanding a more advantageous price, which would reduce the incentive of the other party to commit to the transaction (i.e., the "hold-up problem"). Oliver Williamson, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS (1975). *See* ¶ 94, *supra*.